2005

Portland Fire Weather

Operating Plan

PORTLAND FIRE WEATHER

LOCATION

National Weather Service Forecast Office
5241 NE 122nd Avenue
Portland, OR 97230-1089

HOURS

The National Weather Service Office is open 24 hours a day, 7 days a week. The fire weather duty desk will be staffed with a **CERTIFIED** fire weather forecaster between the hours of 0600 and 1600 seven days a week during fire season, normally from Memorial Day through mid-October. The fire weather desk is staffed with a **CERTIFIED** fire weather forecaster from 0700 to 1500 Monday through Friday during Spring burning (mid to late March through Memorial Day), and also during the fall burning period (mid-October through early November).

STAFF

Steve Todd	Meteorologist in Charge
Tyree Wilde	Warning Coordination Meteorologist
Scott Weishaar	Fire Weather Program Leader and IMET
John Saltenberger	Fire Weather Program Leader and IMET
Clinton Rockey	Fire Weather Forecaster
Dave Willson	Lead Forecaster and Fire Weather Forecaster
Chris Collins	Fire Weather Forecaster
Kirsten Willman	Fire Weather Forecaster

CONTACT

Telephone

Fire Weather Desk	503-326-2420
Lead Forecaster (24 hrs)	503-326-3720
FAX	503-326-2598

Internet

http://www.wrh.noaa.gov/Portland/fwx.htm

Email

scott.weishaar@noaa.gov
john.saltenberger@noaa.gov

FORECAST DISTRICT

Portland services fire weather zones 601-608, 612, and 660. This area covers:

Northwest Oregon and Southwest Washington, North Oregon Cascades including the Columbia River Gorge (to about Hood River). South Washington Cascades and adjacent lowlands of Clark County. The Portland Office is also responsible for spot forecasts in the east districts of the Mt. Hood National Forest (Barlow District).

See the attached map for a graphic description of individual areas/zones of the Portland district.

AGENCIES SERVED

U.S. Forest Service (USFS)
U.S. Bureau of Land Management (BLM)
Oregon Department of Forestry (ODF)
Washington Department of Natural Resources (WDNR)
Various urban and rural local fire districts

FORECAST SERVICES

GENERAL FORECASTS:

Fire Season: Regularly scheduled general fire weather forecasts are issued twice per day by **CERTIFIED** fire weather forecasters at 0900 and 1445.

Prescribed Burning Season: Regularly scheduled land management forecasts are issued by **CERTIFIED** fire weather forecasters Monday through Friday at 0900 and 1430.

Off-season: A land management forecast is issued once per day (approximately 0500) November through early March by the general forecast staff.

NEW: Wind gusts **WILL** be mandatory in the general forecast when the 10-minute sustained wind speed is 15 mph or greater. The Portland office will include wind gusts when the 10-minute wind speed is 10 mph or greater.

"Dryness Levels" (as developed by the Northwest Coordination Center) for the NWS Portland forecast district will be included in the morning forecast. Refer to the NWCC Predictive Services web site for more information. http:/www.or.blm.gov/nwcc/nwcc-reports/Intel_Menu.htm

SPOT FORECASTS

Detailed weather information beyond what is presented in the general forecast may be obtained with a spot forecast request. Spot forecasts may be requested by a telephone call to the fire weather forecaster or through the spot forecast request web page available on the Portland fire weather web page URL listed in the CONTACT section.

Spot Forecasts for prescribed burning: Spot forecast requests for prescribed fire are best initiated prior to 1100 on the planned day of the burn. Requests may also be entered into the spot forecast web page several days prior to planned ignition. In either case, ***A WEATHER OBSERVATION FROM THE BURN SITE WITHIN SIX HOURS OF PLANNED IGNITION IS REQUIRED***. Spot forecasts will be valid 12 hours after planned ignition. The user must request updates beyond 12 hours. Spot forecasts **WILL** be updated for unforeseen events. The appropriate agency (dispatch office) **WILL** be notified of any updates.

Spot Forecasts for wildfires: Spot forecasts for wildfires may be requested at any time and will take priority over other station duties. Spot forecasts will be handled by a **CERTIFIED** fire weather forecaster. This may require that a qualified fire weather forecaster be called in on overtime. Overtime costs will be charged to the incident.

TELEPHONE BRIEFINGS

Daily internet conference call: Portland fire weather conducts a daily weather briefing via a conference call from about early June through early October. Fire weather users are encouraged to participate. The forecaster hosting the briefing will verbally highlight current and forecast fire weather conditions with the help of an internet web page. Conference call participants can follow along with the discussion while viewing graphics displayed on the web page. Conference call times and telephone numbers (and passcodes) can be obtained by contacting the Portland weather office.

Unscheduled telephone briefings: Verbal weather briefings can also be obtained at any time. A **CERTIFIED** fire weather forecaster should be requested to conduct the briefing during fire weather hours. Otherwise, a briefing will be available from the general forecast staff.

FORECAST SERVICES (CONT)

Fuels must be critically dry and fire danger moderate to high before a Red Flag Warning or Fire Weather Watch is issued from the Portland office. Evaluations of fuel conditions will be made in accordance with current NFDRS values and in consultation with fire managers. Assuming these conditions are met, Fire Weather Watches and Red Flag Warnings are usually issued for the following events:

1. COMBINATION OF STRONG WIND AND LOW HUMIDITY

NIGHTTIME CRITERIA:

ZONES 601 AND 602: Two stations (RAWS) must report 35% humidity or less **AND** 10-minute wind speed of 10 mph or more for three hours in an 8-hour time block. Key RAWS: Cedar Creek, Rockhouse1, and South Fork.

ZONES 603 AND 612: Rockhouse1 RAWS reporting 35% humidity or less **AND** 10-minute wind speed of 15 mph or more for four hours in an 8-hour block **AND** one other RAWS reporting 35% humidity or less **AND** 10-minute wind speed of 10 mph or more for two hours. Key RAWS: Rockhouse1, Goodwin Peak, High Point, and Cannibal Mountain.

ZONE 604: Two stations (airports) must report 30% humidity or less **AND** 2-minute wind speed of 15 mph or more for at least four hours in an 8-hour block. Typically occurs in the north part of the valley. KEY STATIONS: Troutdale, Portland, Vancouver, and Hillsboro.

ZONES 605, 607, AND 660: One station (RAWS) must report 35% humidity or less **AND** 10-minute wind speed of 10 mph or more for four hours in an 8-hour block, **AND** at least **TWO** other stations reporting 35% humidity or less **AND** 10-minute wind of 10 mph for at least **TWO** hours. KEY STATIONS: Horse Creek, Log Creek, Wanderer's Peak, Kosmos, Canyon Creek, Orr Creek, and Elk Rock. NOTE: Includes stations from zone 659.

ZONES 606 AND 608: One station (RAWS) must report 30% humidity or less **AND** 10-minute wind speed of 10 mph or more for at least four hours in an 8-hour block, **AND ONE** other station must report the same conditions for at least **ONE** hour. KEY STATIONS: Brush Creek, Trout Creek, Yellowstone, and Emigrant.

FORECAST SERVICES (CONT)

DAYTIME CRITERIA (ALL ZONES):

At least two stations within a zone must report 25% humidity or less AND wind-speed of 10 mph or more (except 15 mph in zone 604) for at least four hours in an 8-hour block.

Typically for east wind (offshore flow), but can occur in the Coast Range and central/south Willamette Valley with north to northeast wind. Can also occur in the Central Cascades and foothills with shallow marine surges (west to northwest wind).

2. CRITICALLY DRY AND UNSTABLE AIR MASS (HAINES INDEX 6)

At least **ONE** station within a zone must report 25% humidity or less and show a high-level Haines value of 6 **AND** fuel conditions (Dryness Levels) are in the "RED". At forecaster discretion, can also be issued when Dryness Level is "YELLOW".

3. LIGHTNING IN COMBINATION WITH DRY FUELS

Dryness Levels **MUST** be in the "RED", and expected lighting frequency is such that multiple starts (5-7) are expected. Typically "scattered" thunderstorm coverage. At forecaster discretion, can also be issued when Dryness Level is"YELLOW". A rare event that would most likely affect the Willamette N.F.. Basically, "scattered" thunderstorms that do not produce enough precipitation to appreciably change the Dryness Levels (from "RED" or high "YELLOW").

NFDRS TREND FORECASTS

A numerical trend forecast is prepared and disseminated to WIMS at about 1545 each afternoon from about late May through early October. In addition, several "point" forecasts are also prepared. The trend forecasts are used to compute the EXPECTED NFDRS indices valid for the following day. The number of NFDRS indices forecast by the weather office depends only on the number of NFDRS observations input into WIMS by the fire agencies. If observations are not entered into WIMS by 1500, a forecast will not be produced for the zone(s).

FORECAST SERVICES (CONT)

INCIDENT METEOROLOGIST SERVICES

Portland has two certified Incident Meteorologists (IMETS) on staff available for wildfire, HAZMAT, or other emergency dispatches. To request an IMET, contact the appropriate fire agency dispatch office.

OTHER SERVICES

FIRE WEATHER TRAINING AND LECTURES

An experienced fire weather forecaster will be available to help instruct the weather sections of standard fire behavior training courses offered by federal, state and local government fire agencies. This includes S-190 through S-590 and others. In addition, a forecaster will also be available for special speaking engagements. For scheduling purposes, requests for an instructor or speaker should be made at least three weeks in advance.

NORTWEST GACC SUMMER DETAIL

The Portland office will detail an experienced fire weather forecaster to the Northwest Geographic Coordination Center (GACC) for 40 hours each week March through October. Duties will include publication of the regional fire weather operating plan, keeping GACC staff continuously advised of fire weather conditions and conducting daily “blast-up” weather coordination calls. Duties also include participation in applied climate research projects under the direction of the regional fire weather manager.

FORECAST VERIFICATION

The purpose of verification is to improve the quality of forecasts and warnings issued from the Portland weather office. Weather conditions are recorded and archived on a routine basis during the fire season. These observations are studied and compared against the forecasts and warnings to identify any systematic bias or consistent errors. Verification will focus on Red Flag Warnings, but also include individual NFDRS station forecasts. Verification results are published in the Portland Fire Weather Annual Summary (available on the Portland fire weather internet page or via hard copy in late January or early February).

ANNUAL SUMMARY, ANNUAL OPERATING PLAN and MISC

A summary of climatic statistics, forecast and warning verification, fire danger trends, spot forecast statistics, training rendered, dispatches, critical fire weather events and other noteworthy items is published each year.

An annual operating plan (this document) describing NWS office services, responsibilities, and procedures will be published each year prior to the fire season. The operating plan is available on the Portland fire weather internet page or via hard copy.

The fire weather program leader(s) also maintains the Portland Fire Weather Web page, provides internal NWS training and attends user agency annual conferences.

GEOGRAPHIC ZONE DESCRIPTIONS (INCLUDING NEW NAMES)

Zone 601 – North Oregon and South Washington Coast including Willapa Hills

Represents the South Washington and North Oregon coastal strip including adjacent west slopes of the Oregon Coast Range and the Willapa Hills of Washington. This zone includes the north portion of the Siuslaw N.F., ODF, and WA DNR protected private land.

Extends east-west from the crest of the Oregon Coast Range to the Pacific Ocean. Extends north-south from the north boundary of Pacific County, WA to Oregon State Highway 22 along the eastern boundary of ODF regulated use area NW-2. The Washington section of this zone represents Pacific and Wahkiakum counties in their entirety.

Zone 612 – Central Oregon Coast

Represents the Central Oregon coastal strip including adjacent west slopes of the Oregon Coast Range. Includes southern portions of the Siuslaw N.F. and ODF protected private land.

Extends east-west from the crest of the Oregon Coast Range to the Pacific Ocean. Extends north-south from Oregon State Highway 22 to the Umpqua River along the west edge of the Siuslaw National Forest including ODF regulated use area SL-2.

Zone 602 – North Coast Range

Represents the east slopes of the North Oregon and South Washington Coast Range. Mostly private land under ODF and WA DNR protection.

Bounded on the west by Coast Range crest. Bounded on the east, in Oregon, by the west periphery of the Willamette Valley and Columbia River. Bounded on the east, in Washington, by the contour of the Willapa Hills/Coast Range. Extends north-south from the north boundary of Lewis County, WA to Oregon State Highway 22.

Zone 603 – Central Oregon Coast Range

Represents the east slopes of the Central Oregon coast range. Mostly ODF protected private land.

Bounded on the west by the Coast Range crest. Bounded on the east by the western periphery of the Willamette Valley. The north boundary is along Oregon State Highway 22. The south boundary lies along Oregon State Highway 38.

Zone 604 – Willamette Valley including Clark County Lowlands of Washington

Bounded on the west and east, in Oregon, by the foothills of the Coast Range and Cascades. Bounded on the west and east, in Washington, by the Columbia River and South Washington Cascade foothills. Extends north-south from Lewis County, WA to just south of Cottage Grove Reservoir.

Zone 605 – North Oregon Cascade Foothills

Represents foothill elevations of the North Oregon Cascades. Mostly ODF protected private land.

Bounded by the east periphery of the Willamette Valley on the west and the National Forest boundary of the Mt. Hood and Willamette National Forests on the east. Extends from the Columbia River on the north to Oregon State Highway 22 (Santiam Highway) on the south.

Zone 606 – Central Oregon Cascade Foothills

Represents the foothill elevations of the Central Oregon Cascades. Mostly ODF protected private land.

Bounded by the east periphery of the Willamette Valley on the west (Interstate 5 south of Eugene) and the Willamette Forest boundary, and extreme north Umpqua Forest boundary on the east. Extends from Oregon State Highway 22 on the north to the Lane/Douglas county line on the south.

Zone 607 – North Oregon Cascades

Represents all of the Mt. Hood NF west of the Cascade Crest along with interior Cascade wilderness areas.

Bounded by the Columbia River on the north, the Cascade Crest on the east, and the Mt. Hood forest boundary on the south and west.

Zone 608- Central Oregon Cascades

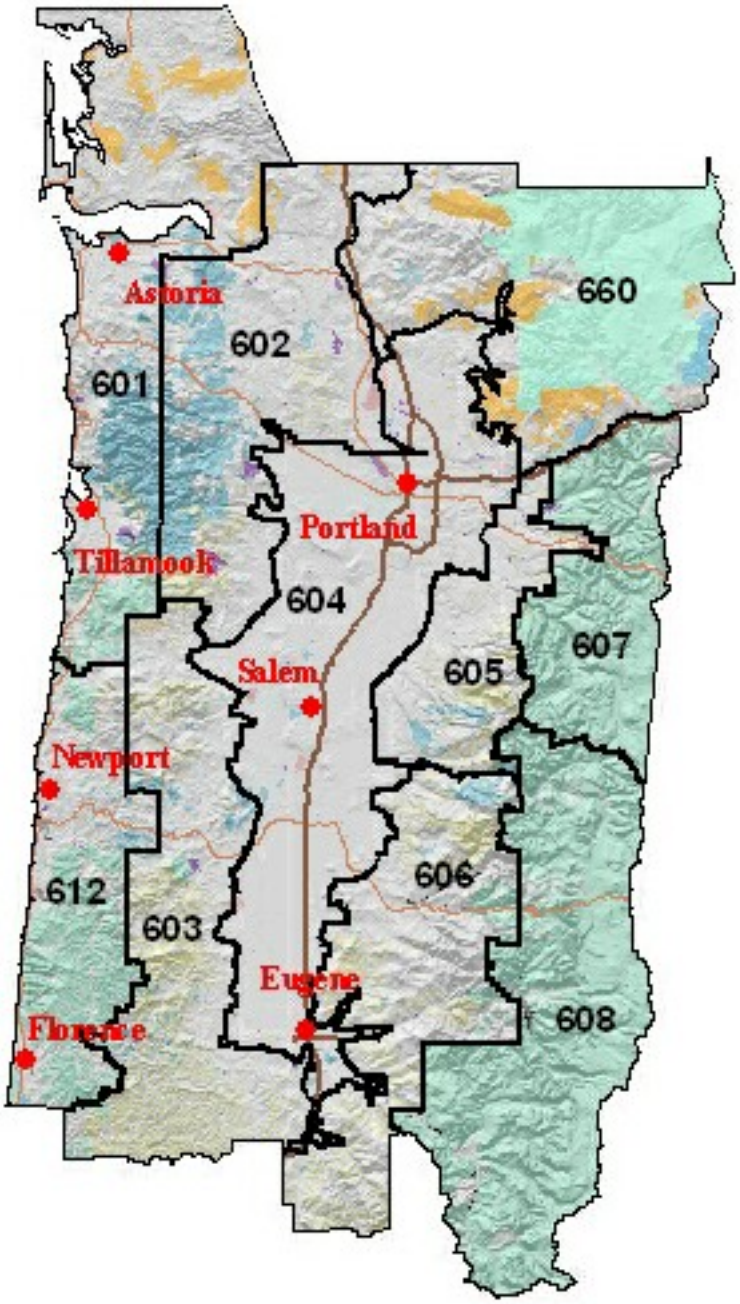
Represents the Willamette NF in its entirety along with interior high Cascade wilderness areas.

Bounded by the Cascade Crest on the east and the Willamette Forest boundary on the south, west, and north.

Zone 660 – South Washington Cascades and Foothills

Represents the Wind River, Mt. Adams and St. Helens Ranger districts of the Gifford Pinchot NF as well as adjacent WDNR protected Cascade and Green Mountain foothills to the south and west. It excludes the Columbia River lowlands of Clark County, WA, which is part of zone 604.

Bounded on the east by the Gifford Pinchot east forest boundary (approximately the Cascade Crest). The southeast boundary follows the Columbia River west to the Clark County, WA line. Then, the boundary heads north to northwest following the contour of the Cascade foothills to the Lewis River, then west along the Lewis River to the Columbia River. The boundary follows the Columbia River north to Kelso, WA. The north boundary extends from Kelso, WA northeast following the contour of the Green Mountain/Cascade foothills to the Lewis County line, then east to the Cascade Crest, bi-secting the Gifford Pinchot NF along the north boundary of the St. Helens and the Mt. Adams Ranger districts.


Astoria
602
601
660
Portland
Tillamook
604
607
Salem
605
Newport
606
612
603
Eugene
608
Florence

2005 NWS Portland NFDRS Station Index

ZONE	NAME	Type	NUMBER	OWNER	LAT	LON	ELEV
601	Huckleberry	R	450407	DNR	46.50	-123.40	2500
601	Tillamook	R	350208	ODF	45.46	-123.82	60
601	Cedar Creek	R	350215	USFS	45.21	-123.77	2240
602	South Fork	R	350216	ODF	45.58	-123.49	2120
602	Abernathy	R	451209	DNR	46.34	-123.10	2000
602	Miller	R	350308	ODF	46.02	-123.27	1090
602	Rye Mountain	R	350505	BLM	45.24	-123.55	2000
602	Castle Rock	R	451207	DNR	46.31	-122.90	213
603	Wilkinson Ridge	R	351811	BLM	44.33	-123.72	1500
603	High Point	R	352550	BLM	43.91	-123.38	1935
603	Village Creek	R	352547	BLM	44.21	-123.47	1280
603	Rockhouse1	R	351710	ODF	44.93	-123.47	2000
603	Clay Creek1	R	352560	ODF	44.02	-123.21	1500
604	Vancouver	M	451306	DNR	45.70	-122.70	210
604	Finley	R	351813	FWS	44.42	-123.33	330
604	Stayton	R	351911	ODF	44.80	-122.81	469
605	Horse Creek	R	350727	BLM	44.94	-122.40	2000
605	Eagle Creek	R	350728	ODF	45.37	-122.33	744
606	Brush Creek	R	352553	BLM	44.28	-122.85	2121
606	Trout Creek	R	352552	BLM	44.11	-122.58	2400
606	Hawley Butte	R	352549	BLM	43.71	-122.84	3053
606	Yellowstone	R	352024	BLM	44.60	-122.44	3080
607	Log Creek	R	350604	USFS	45.50	-121.89	2500
607	Wanderer's Peak	R	350726	USFS	45.11	-122.20	4350
607	Red Box Bench	R	350718	USFS	45.07	-121.92	3250
607	Blue Ridge	R	350811	USFS	45.52	-121.72	3780
607	Locks	R	350605	ODF	45.67	-121.88	128
607	Si Si Lookout	M	350725	USFS	44.92	-121.83	5617
607	Clear Lake	M	350902	USFS	45.15	-121.58	4458
608	Emigrant	R	352558	USFS	43.47	-122.22	3840
608	Pebble	R	352554	USFS	44.23	-121.98	3300
608	Fields	R	352557	USFS	43.67	-122.30	3360
608	Boulder Creek	R	351909	USFS	44.72	-122.00	3570
612	Cannibal	R	351604	USFS	44.35	-123.89	1946
612	Goodwin Peak	R	352545	USFS	43.93	-123.89	1840

612	Dunes	R	352559	USFS	43.95	-124.12	20
660	Hamilton Mountain	R	451928	DNR	45.67	-122.01	3000
660	Elk Rock	R	451208	DNR	46.35	-122.61	2500
660	Canyon Creek	R	451921	USFS	45.92	-122.17	2480
660	Trout Lake	R	451917	USFS	46.10	-121.71	3615